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ABSTRACT

Preliminary findings are presented from a study of the performance of 99 institutionalized retarded children on the Vineland Adaptive Behavior Scale (VABS), a revised form of the Vineland Social Maturity Scale (VSMS). No significant sex or race differences were revealed on test performances. Mental age was found to correlate with VABS scores with a range from .81 (Communication) to -.20 (Maladaptive 2). Results further suggested that the VABS social adaptive measures can be used to estimate functional level for institutional retardates, but that the maladaptive scores are relatively independent of cognitive components. Correlations between the VABS and VSMS were indicated, as was adequate discriminant validity between the VABS domain scores and the maladaptive scales. (Author/CL)

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INTRODUCTION TO SYMPOSIUM

and

INTERCORRELATIONS, SEX, AND RACE DIFFERENCES ON THE VINELAND ADAPTIVE BEHAVIOR SCALES

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EC150394

Welcome to a Division 33 symposium discussing the Vineland Adpative Behavior Scale currently under development by American Guidance Services. We at ECU have been involved during the past two years with AGS as a Regional site for the VABS, both during the preliminary item development stage in 80-81 and during the standardization process which has just recently concluded. The panel would like to present today some of our preliminary findings from one of the samples we collected, a sample of 99 residents at Caswell Center, a residential facility for the mentally handicapped. We also collected data on over 200 "normal" 0-18-year-olds, or at least as normal a group as you can find in a stratified sample in eastern North Carolina, but because of some delays, we will not be able to present those findings or use scaled scores in our presentations.

Our panelists are:

Dr. Larry Bolen, Associate Professor and Chairperson of the School Psychology Program, ECU, who with, Ms. Janet Gwaltney, an ECU Graduate Student, will present an equating study between the Vineland Social Maturity Scale and the VABS (Vineland Adaptive Behavior Scale).

Dr. Thomas Durham, Assistant Professor, Department of Psychology, ECU, will then discuss a study comparing the VABS and the Stanford-Binet.

Dr. Pattie Harrison, VABS Project Director, AGS, will then serve as our discussant, and we hope to have time for questions and answers at the end.

I'm John Childers, Assistant Professor and Director of Testing, Department of Psychology, at ECU. I would like to begin with a brief introduction comparison as well as a description of the old Vineland and the VABS--(Overhead 1).

Adaptive behavior as defined by the AAMD is "The effectiveness or degree with which the individual meets the standards of personal independence and social responsibility expected of his/her age and culture group" (Grossman, 1973).

However, the concept of adaptive behavior has expanded to include population other than the retarded. This trend follows the precedents as established in P. L. 94-142.

Unfortunately, the provision of psychological services to the retarded as well as other handicapped individuals, i. e., the learning disabled, the emotionally disturbed, and the speech impaired, etc., continues to present major problems for professional psychologists.

Specifically, the suitability of existing instruments to measure adaptive behavior remains a stumbling block. One such instrument used to measure the adaptive behavior or normal as well as mentally retarded individuals has been the Vineland Social Maturity Scale (VSMS: Doll, 1935). The instrument is presently being revised (VABS: Sparrow, Balla, & Cicchetti, 1981).

This major revision will allow for the assessment of adaptive behavior for non-handicapped as well as five identifiable populations: mentally retarded adults in residential placements; mentally retarded adults in non-residential placements: emotionally disturbed adolescents

in residential placements: visually impaired and hearing impaired children in residential placements (Sparrow, et al., 1981).

Figure 1 shows a comparison of the VABS and the VSMS.

Similarities between the two instruments may indicate that the original construct as proposed by Doll continues to be represented in the VABS.

The VABS is arranged according to a developmental schema, following Doll's original concept. Sara Sparrow has also retained the multi-dimensional aspect of adaptive behavior as outlined by Doll and has strongly reinforced the structured interview format.

Improvements though are apparent. There are many more items which allow for better discrimination and increased reliabilities at each age level. The revision we used had 2½ times more items than the VSMS. Another addition is the inclusion of a maladaptive domain. Last, the norm groups appear to be a vast improvement over the VSMS norm both in numbers and representativeness.

There are 5 domains measured by the VABS--as you can see illustrated with some of the sample items from each:

The Communications Domain

The Daily Living Domain

The Socialization Domain

The Motor Skills Domain

The Maladaptive Behavior Domains

Let me briefly explain the maladpative domains for clarity. Maladaptive Domain 1 is a series of questions of problems typically found in non-institutionalized/normal children. Maladaptive Domain 2 is

a series of items which are serious maladaptive behaviors found typically in disturbed institutional populations. The normal subject standardized questionnaire did not include the Maladaptive 2 questions, only the institutionalized/residential samples questionnaire did. The Maladaptive 2 scores reported were obtained by adding the Maladaptive 1 scored items plus the Maladaptive 2.

The intercorrelations within the VABS (Figure 2) were as expected and generally significant except to note that the Maladaptive Domain Scales did not significantly relate to the other domains except for the socialization domain.

T-test were conducted on the domains for sex and race differences. Sex (50 males, 49 females), race (70 whites, 28 Blacks), and no significant sex or race differences were obtained on any domain.

One interesting problem encountered during our research should be noted. In our residential Caswell population, we had to restrict ourselves to the one informant (staff member) who "best knows the resident." In several instances, because of the nature of the institutional programming, there were areas of resident's ability our informants were not fully aware of. Thus, in probability, the VABS will need to utilize multi-informants when utilized in residential setups, including representatives of the various program supervisors and all shifts!

Dr. Bolen will now discuss his equating study.

Figure 1

A Comparison of the Number of VSMS and VABS Items per Domain Across the Age Span

VSMS Domains	Number of Items	VABS Domains	Number of Items
1. Communication	15	1. Communication	68
2. Self Direction	14		
3. Self-Help Dressing	13		
4. Self-Help Eating	12	2. Daily Living Skills	93
5. Self-Help General	14		
6. Occupation	22	3. Motor Skills	36
7. Locomotion	10		
8. Socialization	17	4. Socialization	68
		5. Maladaptive Behavior 1	27
		6. Maladaptive Behavior 2	9
Total = 117		Total = 394	

* Nine items have been included specifically for cases where the child lives in an institutional setting.

Taken from "An Equating Study of the Revised Vineland: Hearing Impaired Sample" by Tom Altepeter and Eileen M. Moscato, Institute for Child Study, Indiana University, 1982.

Figure 2

VABS Pearson Correlation Coefficients

Caswell Center Population N=99

	Communication	Daily Living	Socialization	Motor	Mal. 1
Communication					
Daily Living	.86*				
Socialization	.88*	.80*			
Motor	.70*	.86*	.62*		
Maladatpive--1	-.12	-.12	-.26*	.12	
Maladaptive--2	-.22	-.21	-.35*	.05	.97*

NOTE: *Significant at .01 level.

Tables of overheads presented by Dr Thomas Durham
APA August 1982
Vineland Symposium

ANOVA: VABS Communication Score By IQ

SV	df	SS	MS	F	Prob.
IQ	3	52614.81	17538.27	122.75	.0000
S/IQ	66	9429.26	142.87		
Total	69	62044.07			

Group	MA Range (mo.)	n	Mean	s
1	MA ≤ 28	20	9.60	5.82
2	28 ≤ MA ≤ 54	20	54.25	13.46
3	55 ≤ MA ≤ 71	14	68.86	4.17
4	MA > 71	16	80.25	18.48

By Newman-Keuls Procedure, means which do not differ at the .05 level are underlined:

Group			
1	2	3	4

Each mean is significantly different from all others.

ANOVA: VABS Daily Living Score By IQ

SV	df	SS	MS	F	Prob.
IQ	3	64939.03	21646.34	45.20	.0000
S/IQ	66	31608.34	478.91		
Total	69	96547.37			

Group	MA Range (mo.)	n	Mean	s
1	MA < 28	20	15.75	6.14
2	28 ≤ MA ≤ 54	20	65.10	24.21
3	55 ≤ MA ≤ 71	14	87.29	13.69
4	MA > 71	16	90.56	33.98

By the Newman-Keuls procedure, means which do not differ at the .05 level are underlined:

1 2 3 4

ANOVA: VABS Socialization Score By IQ

SV	df	SS	MS	F	Prob.
IQ	3	52523.61	17507.87	67.78	.0000
S/IQ	66	17046.96	258.29		
Total	69	69570.57			

Group	MA Range (mo.)	n	Mean	s
1	MA $\leq$ 28	20	10.65	6.66
2	28 $\leq$ MA $\leq$ 54	20	49.45	17.81
3	55 $\leq$ MA $\leq$ 71	14	63.14	13.21
4	MA $>$ 71	16	84.63	22.96

By the Newman-Keuls Procedure, means which do not differ at the .05 level are underlined:

1 2 3 4

Each mean is significantly different from all others.

ANOVA: VABS Motor Score By IQ

SV	df	SS	MS	F	Prob.
IQ	3	13735.09	4578.36	17.82	.0000
S/IQ	66	16958.28	256.94		
Total	69				

Group	MA Range (mo.)	n	Mean	s
1	MA $\leq$28	20	17.15	9.69
2	28 $\leq$MA $\leq$54	20	38.15	19.03
3	55 $\leq$MA $\leq$71	14	53.43	12.06
4	MA $>$71	16	48.38	20.66

By Newman-Kauls Procedure, means which do not differ at the .05 level are underlined:

Group

1 2 4 3

ANOVA: Maladaptive Behavior I Score By IQ

SV	df	SS	MS	F	Prob.
IQ	3	56.41	18.81	0.44	.72
S/IQ	66	2809.37	42.57		
Total	69	2865.78			

Group	MA Range (mo.)	n	Mean	s
1	MA < 27	20	10.45	5.21
2	28 ≤ MA ≤ 54	20	9.35	6.02
3	55 ≤ MA ≤ 71	14	11.93	7.95
4	MA > 71	16	10.06	7.23

ANOVA: Maladaptive Behavior II Score By IQ

SV	df	SS	MS	F	Prob.
IQ	3	120.31	40.10	0.60	.62
S/IQ	66	4409.46	66.81		
Total	69	4529.77			

Group	MA Range (mo.)	n	Mean	s
1	MA < 27	20	14.15	6.88
2	28 ≤ MA ≤ 54	20	11.40	7.51
3	55 ≤ MA ≤ 71	14	13.79	10.12
4	MA > 71	16	11.38	8.58

SUMMARY: VABS Scores By Intelligence

VABS Variable	F (3,66)	P
Communication	122.76	.00001
Daily Living	45.20	.00001
Socialization	67.78	.00001
Motor	17.82	.00001
Maladaptive Behavior I	0.44	.72
Maladaptive Behavior II	0.60	.62

Table 1

Intercorrelations Among VABS Domain Scores,

Chronological Age, and Length of Residence (N=30)

	1	2	3	4	5	6	7	8
1. VABS Composite								
2. Communication	.97							
3. Daily Living	.99	.93						
4. Socialization	.96	.88	.94					
5. Motor	.96	.94	.93	.87				
6. Maladaptive 1	.12	.21	.10	-.05	.23			
7. Maldaptive 2	.10	.20	.09	-.08	.22	.97		
8. Chronological Age	.16	.14	.18	.11	.19	-.08	.02	
9. Length of Residence	.11	.07	.14	.14	.07	-.40	-.31	.64

Table 2

Correlations of VSMS Total Score and Social Age

VABS Domain Scores, Chronological Age, and Length of Residence

VSMS Total[a] Score With	VSMS Raw Score	VSMS Social Age
VABS Composite Score	.97	.94
Communication	.96	.95
Daily Living Skills	.95	.95
Socialization	.90	.90
Motor Skills	.95	.87
Maladaptive 1	.14	.02
Maladaptive 2	.13	.01
Age	.23	.19
Residence Length[b]	.21	.24

[a] $n=30$
[b] $n=29$

Table 3

Means and Standard Deviations (N=30)

	Maximum Score [a]	Mean	SD
VABS Composite Score	602	245.00	121.88
Communication	136	60.13	31.26
Daily Living	186	78.67	41.06
Socialization	136	56.23	29.91
Motor	72	50.37	23.51
Maladaptive 1	54	9.77	6.20
Maladaptive 2	18	11.77	7.74
VSMS Total Score	117	57.20	23.96
VAMS Social Age (in months)		76.10	43.04
Chronological Age (in months)		384.53	154.67
Length of Residence (in months)		206.43	111.15

[a]Items within the VABS domains are scored as 2, 1, or zero.

Abstract

The adaptive behavior of institutionalized retarded subjects was assessed using the Vineland Adaptive Behavior Scales (VABS), a measure currently being developed by the American Guidance Service as a revision of and replacement for the Vineland Social Maturity Scale (VSMS). Four social behavior scales (Communication, Daily Living Skills, Socialization and Motor Skills) and two maladaptive behavior scales (Maladaptive Behavior 1 and Maladaptive Behavior 2) comprise the VABS. No significant sex or race differences were obtained. Correlations of MA and the various VABS scores ranged from .81 (Communication) to -.20 (Maladaptive 2). The results further suggested that the VABS social adaptive measures can be used to estimate functional level for institutionalized retardates, but that the maladaptive scores are relatively independent of cognitive components. The VABS and VSMS were compared with the composite raw scores of each instrument correlating .97 and the four separate domain scores correlating between .90 and .96. Between 81 to 92 percent of the variance in VABS is accounted for by the VSMS total score. Adequate discriminant validity between the VABS domain scores and the maladaptive scales were indicated.